

Application No. 10/572,616  
Amdt. Dated: May 12, 2010  
Reply to Office Action Dated: February 19, 2010

### **REMARKS/ARGUMENTS**

The Examiner is thanked for the Office Action mailed February 19, 2010. The status of the application is as follows:

- Claims 1-21 are pending, claims 6, 13-14 and 19-20 have been amended, and claim 21 is objected to;
- Claims 1-3, 5-8 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zlokolica et al. (Video denoising using multiple class averaging with multiresolution, University of Ghent, Belgium) in view of Eck et al. (US 2006/0072845); and
- Claims 4, 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zlokolica et al. in view of Eck et al. and in further view of Brailean et al. (Noise Reduction: Filters for Dynamic Image sequence: A Review).

The objections and rejections are discussed below.

#### **The Allowed Claims**

The Examiner is thanked for indicating that claim 21 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Applicant reserves the right to re-write claim 21 as indicated by the Examiner at a later time.

#### **The Rejection of Claims 1-3, 5-8, 10-19 under 35 U.S.C. 103(a)**

Claims 1-3, 5-8 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zlokolica et al. in view of Eck et al. This rejection should be withdrawn because the combination of Zlokolica et al. and Eck et al. does not establish a *prima facie* case of obviousness with respect to the subject claims.

The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). MPEP §2143.

Independent **claim 1** recites an image processing system including, *inter alia*, that ***one or more high frequency slices are filtered at a greater rate than one or more low frequency slices.***

The combination of Zlokolica et al. and Eck et al. does not teach or suggest at least the above-emphasized claim aspect.

The Office has previously conceded that Zlokolica et al. fails to teach one or more high frequency slices are filtered at a greater rate than one or more low frequency slices. In an attempt to make up for this conceded deficiency, the Office has asserted that Eck et al. teaches at paragraphs [0013] and [0045-0047] that 1) a Laplacian pyramid contains a high pass fraction (high frequency slice) and a Gaussian pyramid that contains a low pass fraction (low frequency slice), 2) the input signal is being split, and 3) when the high frequency subband is processed the lower spatial frequency is left intact. Applicant respectfully disagrees that Eck et al. teaches that the lower spatial frequency is left intact when the high frequency subband is processed as the Office asserts and that the teachings of Eck et al. make up for the conceded deficiencies of Zlokolica et al.

Eck et al. teaches at ¶ [0045] that the Gaussian pyramid representations are generated by using a reduction operation (low-pass filtering or smoothing and a subsequent resolution reduction) applied to an input image, which leads to an image of half the size. Eck et al. further teaches at ¶ [0045] that the Laplacian pyramid representations are generated by calculating the difference between the input image and a copy of the input image after both images are passed through the above described reduction operation and an expansion operation (increasing the resolution by a factor of 2 and a subsequent low-pass filtering or interpolation). Eck et al. further teaches that the Gaussian pyramid representations contain the low pass fraction (low frequency slice) of the resolution stage and the Laplacian pyramid representations contain the low pass fraction (low frequency slice) and the corresponding high pass fraction (high frequency slice) of the resolution stage (see ¶ [0045]). However, neither the Gaussian or Laplacian filtering filters one or more high frequency slices (high pass fraction) at a greater rate than one or more low frequency slices (low pass fraction) as required by claim 1. Accordingly, this rejection should be withdrawn.

Independent **claims 7 and 8** recite aspects similar to those recited in claim 1. As such, the above discussion with respect to claim 1 applies *mutatis mutandis* to claims 7 and 8, and these rejections should be withdrawn.

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**Claims 2-3, 5, 10-13 and 15-18** respectively depend from claims 1, 7 and 8, and are allowable at least by virtue of their dependencies. Accordingly, the rejection of these claims should be withdrawn.

**Claim 6** depends from claim 1 and has been amended with aspects absent from the prior art of record. The entry and allowance of claim 6 is respectfully requested.

**Claims 14 and 19** respectively depend from claims 7 and 8 and have been amended to incorporate the aspects of objected to claim 21. As such, claims 14 and 19 are allowable and the rejection of these claims should be withdrawn.

**The Rejection of Claims 4, 9 and 20 under 35 U.S.C. 103(a)**

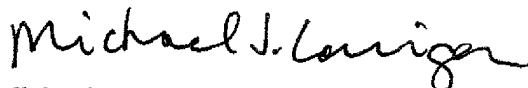
Claims 4, 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zlokolica et al. in view of Eck et al. and further in view of Brailean et al. **Claims 4 and 9** respectively depend from claims 1 and 8, and are allowable at least by virtue of their dependencies.

**Claim 20** depends from claim 7 and has been amended with aspects absent from the prior art of record. Entry and allowance of claim 20 is respectfully requested.

**Conclusion**

In view of the foregoing, it is submitted that the claims distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,



Michael J. Corrigan, Reg. No. 42,440  
Driggs, Hogg, Daugherty & Del Zoppo Co., L.P.A.  
38500 Chardon Road  
Willoughby Hills, Ohio 44094  
Phone: 1.440.391.5100  
Fax: 1.440.391.5101

Direct all correspondence to:  
Philips Intellectual Property & Standards  
Customer Number: 24737